

# Raised beds vs. in-ground gardening



**Q**uestion: I want to increase my garden food production this spring. Gardening in raised beds is becoming more common. What are the advantages and disadvantages of raised beds over traditional, in ground gardening?

**A**nswer: The term raised bed refers to garden beds that are higher than the natural grade. They can be a simple mounding of soil or a bed with constructed sides to enclose the soil.

There are several reasons for building raised beds. The gardener may like the way they look in the landscape, bringing order out of chaos. The higher soil level can make working with the bed easier. The site may be sloped, and raising the soil can give a level surface.

Also there may be cause to avoid the soil at the site. The clay content may be too high. A high winter water table makes growing in this important season impossible. The soil may be contaminated with building debris and heavy metals from previous uses.

Materials used in construction of a raised bed must tolerate soil contact without deteriorating. These could include rot-resistant lumber, plastic, sheetmetal, concrete, stock tanks or metal culverts standing on end. If there is concern that soil contamination would come from these materials, a plastic sheet liner could be installed before filling.

For a tight budget, used materials can be found on Craigslist and at Heartwood Enterprises south of Roseburg.

The raised bed has more surface exposed to the air so the soil temperature will fluctuate more widely over



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In-ground planting can offer more plantable square feet, is more economical and uses existing soil for an easier start up.

a day and over the year. This can be a benefit for getting an early start in spring as the bed will warm sooner than an in-ground bed. For the summer heat and winter freeze this can be a liability. It will also dry out more quickly so the moisture level needs to be monitored closely.

Because the volume of the root zone of a raised bed is restricted, they are usually used for growing small plants with dense spacing. Higher inputs of water and fertilizer are needed for continuous production.

Healthy soil is composed of sand, silt, clay, organic material and beneficial microbes. Wood waste is widely available in our region. Sold as compost, it sometimes is used as a raised bed mix, a completely foreign environment to plants. The list of reasons not to use wood in a food garden is long. It is best to avoid it. There is real top soil available for sale if the

gardener needs to import it. If a gardener wants to graduate to almost a farmer status, then he or she is going to have to grow in flat ground. Growing a significant amount of calories for the family means big plants, deep roots, cover crops and a healthy ecosystem. These are the commodity crops of corn, potatoes, squash, sweet potatoes and dry beans.

There is a concern about high clay soil in our region. Raised beds are sometimes built to avoid gardening in it. But clay is the functional component of soil. It's presence promotes humus formation and stores plant nutrients to resist leaching. To avoid the sticky boot syndrome, applications of aglime (calcium carbonate), gypsum (calcium sulphate), biochar and home-made compost will greatly improve the workability of the soil.

For a small fee Douglas County Master Gardeners can do a



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Raised beds can be simple mounding of soil or a bed with constructed sides, such as these. Construction materials are almost limitless, but must tolerate soil contact without deteriorating.

soil test to determine the clay content as well as the major nutrients. A healthy clay content would be 10-30% of soil volume.

For more details about the test call 541-236-3052.

*Do you have a gardening question? Contact the Douglas County Master Gardeners at [ask.extension.org/ask](http://ask.extension.org/ask). Presently, the plant clinic is closed until further notice due to public safety orders.*